

U.S. Patent Application Serial No. 10/508,956
Amendment filed February 29, 2008
Reply to OA dated December 5, 2007

AMENDMENTS TO THE CLAIMS:

Please cancel claims 5, 8, 10-15, 24-29, and 32 without prejudice or disclaimer, and amend claims 1, 3, 4, 7, 9, 16, 30, 33 and 34, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A liquid vegetable unsaturated alcohol mixture having an iodine value of 88 to 100 and a cloud point of less than 7°C and a conjugated diene compound content of 1 wt. % or less, the unsaturated alcohol mixture being prepared by reduction of a vegetable unsaturated fatty acid mixture and/or an alkyl ester thereof in the presence of a zinc-type catalyst having a copper content of 30 ppm or less, the vegetable unsaturated fatty acid mixture being prepared from at least one vegetable oil selected from the group consisting of palm oil, coconut oil and palm kernel oil.

Claim 2 (Original): The liquid vegetable unsaturated alcohol mixture of claim 1 used in a material for cosmetics.

Claim 3 (Currently amended): ~~Use of~~ A cosmetic comprising the liquid vegetable unsaturated alcohol mixture of claim 1 ~~as a material for cosmetics.~~

U.S. Patent Application Serial No. 10/508,956

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Reply to OA dated December 5, 2007

Claim 4 (Currently amended): A derivative of the liquid vegetable unsaturated alcohol mixture of claim 1 which is any one of the following:

- (a) an alkylene oxide adduct of the liquid vegetable unsaturated alcohol mixture;
- (b) a sodium salt, a potassium salt, a triethanolamine salt or an ammonium salt of a sulfuric acid ester of the liquid vegetable unsaturated alcohol mixture or an alkylene oxide adduct thereof;
- (c) carboxylic acid ether of the liquid vegetable unsaturated alcohol mixture or an alkylene oxide adduct thereof, or a sodium salt, a potassium salt, a triethanolamine salt or an ammonium salt of the carboxylic acid ether;
- (d) an ester of the liquid vegetable unsaturated alcohol mixture with an acid selected from the group consisting of fatty acids and lactic acid; and
- (e) phosphate ester of the liquid vegetable unsaturated alcohol mixture or alkylene oxide adduct thereof, or a sodium salt, a potassium salt, a triethanolamine salt or an ammonium salt of the ester.

Claim 5 (Canceled).

Claim 6 (Original): A derivative of the liquid vegetable unsaturated alcohol mixture of claim 4 used as a material for cosmetics.

U.S. Patent Application Serial No. **10/508,956**
Amendment filed February 29, 2008
Reply to OA dated December 5, 2007

Claim 7 (Currently amended): ~~Use of~~ A cosmetic comprising the derivative of the liquid vegetable unsaturated alcohol mixture of claim 4 ~~as a material for cosmetics.~~

Claim 8 (Canceled).

Claim 9 (Currently amended): The liquid vegetable unsaturated alcohol mixture according to claim 8 1, wherein the content of volatile components is 500 ppm or less as measured by head space gas chromatography when the alcohol mixture is heated at 150°C for 10 minutes.

Claims 10-15 (Canceled).

Claim 16 (Currently amended): ~~A~~ The liquid vegetable unsaturated alcohol mixture according to claim 1, which is prepared by reduction of a vegetable unsaturated fatty acid and/or an alkyl ester thereof in the presence of a zinc-type catalyst having a copper content of 30 ppm or less, the vegetable unsaturated fatty acid mixture being prepared from at least one vegetable oil selected from the group consisting of palm oil, coconut oil and palm kernel oil.

Claim 17 (Original): The liquid vegetable unsaturated alcohol mixture according to claim 16, wherein the zinc-type catalyst is at least one catalyst selected from the group consisting of zinc-

U.S. Patent Application Serial No. **10/508,956**
Amendment filed February 29, 2008
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chrome oxide, zinc-aluminum oxide, zinc-aluminum-chrome oxide, zinc-chrome-manganese oxide, zinc-iron oxide and zinc-iron-aluminum oxide.

Claim 18 (Original): A liquid vegetable unsaturated alcohol mixture according to claim 16 that is prepared by slight hydrogenation of the obtained liquid vegetable unsaturated alcohol mixture.

Claim 19 (Original): The liquid vegetable unsaturated alcohol mixture according to claim 18, wherein the slight hydrogenation is carried out using a copper-containing catalyst.

Claim 20 (Original): The liquid vegetable unsaturated alcohol mixture according to claim 18, wherein the slight hydrogenation is carried out at a hydrogen pressure within the range of from 1 MPa to atmospheric pressure, and a temperature at 50 to 200°C.

Claim 21 (Original): The liquid vegetable unsaturated alcohol mixture according to claim 16 which is prepared by deodorizing the obtained liquid vegetable unsaturated alcohol mixture.

Claim 22 (Original): The liquid vegetable unsaturated alcohol mixture according to claim 21, wherein the deodorization is carried out by steam at 100 to 200°C, and 0.1 to 70 KPa with a steam blowing amount of 0.1 to 20 wt.%.

U.S. Patent Application Serial No. **10/508,956**
Amendment filed February 29, 2008
Reply to OA dated December 5, 2007

Claim 23 (Original): The liquid vegetable unsaturated alcohol mixture according to claim 16 which is prepared by a process including a distillation step.

Claims 24-29 (Canceled).

Claim 30 (Currently amended): A process for preparing a liquid vegetable unsaturated alcohol mixture, the process comprising the step of reducing a vegetable unsaturated fatty acid mixture and/or an alkyl ester thereof in the presence of a zinc-type catalyst having a copper content of 30 ppm or less, the vegetable unsaturated fatty acid mixture being prepared from at least one vegetable oil selected from the group consisting of palm oil, coconut oil and palm kernel oil and the step of slightly hydrogenating the obtained liquid vegetable unsaturated alcohol mixture to give the mixture having a conjugated diene compound content of 1 wt. % or less.

Claim 31 (Original): The process according to claim 30, wherein the zinc-type catalyst is at least one catalyst selected from the group consisting of zinc-chrome oxide, zinc-aluminum oxide, zinc-aluminum-chrome oxide, zinc-chrome-manganese oxide, zinc-iron oxide and zinc-iron-aluminum oxide.

Claim 32 (Canceled).

U.S. Patent Application Serial No. **10/508,956**
Amendment filed February 29, 2008
Reply to OA dated December 5, 2007

Claim 33 (Currently amended): The process according to claim ~~32~~ 30, wherein the slight hydrogenation is carried out using a copper-containing catalyst.

Claim 34 (Currently amended): The process according to claim ~~32~~ 30, wherein the slight hydrogenation is carried out at a hydrogen pressure within the range of from 1 MPa to atmospheric pressure, and a temperature at 50 to 200°C.

Claim 35 (Original): The process according to claim 30 which includes a step of deodorizing the obtained liquid vegetable unsaturated alcohol mixture.

Claim 36 (Original): The process according to claim 35, wherein the deodorization is conducted by steam at 100 to 200°C, and 0.1 to 70 KPa with a steam blowing amount of 0.1 to 20 wt.%.

Claim 37 (Original): The process according to claim 30 which includes a step of distillation.